

REMARKS

Claims 1-40 are in the case and presented for reconsideration. Claims 1, 5, 6, 7, 9 and 10 have been amended. No new matter has been added.

Claim 1 has been rejected under the judicially created doctrine of double patenting over Claim 1 of U.S. Patent 6,309,370. As a matter of convenience, the Applicant has enclosed herewith a Terminal Disclaimer in an effort to satisfy the Examiner's request and proceed with prosecution of the present Application. Accordingly, the Examiner's rationale for requiring this Terminal Disclaimer is not being addressed on the merits.

Claims 1, 2, 12-15, 33, 36 and 39 have been rejected under 35 U.S.C. § 103 (a) as being unpatentable over U.S. Patent 6,283,951 (Flaherty et al.) and further in view of U.S. Patent 6,063,022 (Ben-Haim). Claims 3-11 have been rejected under 35 U.S.C. § 103 (a) as being unpatentable over Flaherty in view of U.S. Patent 6,063,022 (Ben-Haim) and further in view of U.S. Patent 5,865,738 (Morocos et al.). Claims 16-17 and 25-31 have been rejected under 35 U.S.C. § 103 (a) as being unpatentable over Flaherty, in view of U.S. Patent 6,063,022 (Ben-Haim) and further in view of U.S. Patent 6,277,082 (Gambale et al.). Claims 19-24 have been rejected under 35 U.S.C. § 103 (a) as being unpatentable over Flaherty, in view of U.S. Patent 6,063,022 (Ben-Haim), U.S. Patent 6,277,082 (Gambale) and further in view of U.S. Patent 6,258,789 (German et al.). Claims 34, 37 and 40 have been rejected under 35 U.S.C. § 103 (a) as being unpatentable of Flaherty in view of U.S. Patent 6,063,022 (Ben-Haim), U.S. Patent 6,277,082 (Gambale) and further in view of U.S. Patent 4,578,061 (Lemelson). The Examiner's "Response to Arguments" outlined on pages 8-11 of the present Office Action are also noted.

With respect to these rejections and the Examiner's response to the Applicant's earlier arguments, the Applicant respectfully traverses as follows. For efficiency purposes, the Applicant maintains its position as to the relevant teachings of the cited prior art references

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and their applicability to the Applicant's claimed invention such as set forth in the Applicant's prior Response dated July 31, 2002.

In order to proceed with prosecution of the present Application in a more efficient manner, Claim 1 has been amended in order to more particularly point out the claimed invention as a method for inducing angiogenesis or myogenesis in a heart of a patient comprising the steps of: providing a system for intracardiac drug administration comprising a catheter, wherein the catheter has at least one position sensor which generates signals responsive to an applied field for determining the position and orientation of the catheter wherein the signals are used to generate position and orientation coordinates, and a drug delivery device for delivering the cell. The system also comprises control circuitry for determining position and orientation coordinates of a distal end of the catheter and for generating a viability map of the heart comprising a site suitable for targeted therapy by the catheter. Other steps include generating the viability map of the heart; identifying the site suitable for targeted therapy on the viability map; inserting the catheter into a chamber of the heart at the site; delivering the cell to the site with the drug delivery device based on position and orientation coordinates in response to signals from a position sensor; and inducing angiogenesis or myogenesis in the site of the heart from the delivered cell. The support for this Amendment can be found in the Specification, for example, Page 9, Line 9; Page 10, Line 10; Page 28, Line 15; Page 30, Line 18; and Page 41, Line 10 – Page 42, Line 5.

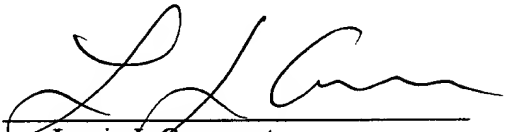
Turning back to the cited prior art references, none of these references, either alone or in combination with each other, describe, suggest or even infer the novel combination of method steps of amended Claim 1 as outlined above. Accordingly, amended Claim 1 is both patentably distinct and non-obvious over these references. Claims 2-40 depend either directly or indirectly from amended Claim 1 and further patentably distinguish the claimed present invention over these references.

Accordingly, by this Amendment and for the reasons outlined above, the present invention is neither anticipated by nor rendered obvious by the cited prior art references, and favorable action is respectfully requested.

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Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page(s) is/are captioned "Version with markings to show changes made".

Respectfully submitted,

By: 
Louis J. Capezzuto
Reg. No. 37,107

Johnson & Johnson
One Johnson & Johnson Plaza
New Brunswick, NJ 08933-7003
(732) 524-2218
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

Claim 1. ([Twice] Three Times Amended) A method for [delivering a cell to] inducing angiogenesis or myogenesis in a heart of a patient comprising the steps of:

providing [an apparatus] a system for intracardiac drug administration comprising a catheter, said catheter having at least one position sensor which generates signals responsive to an applied field for determining the position and orientation of said catheter, said signals being used to generate position and orientation coordinates, and a drug delivery device for delivering said cell, the system also comprising control circuitry for determining position and orientation coordinates of a distal end of said catheter and for generating a viability map of said heart comprising a site suitable for targeted therapy by said catheter;

generating the viability map of the heart;

identifying said site suitable for targeted therapy on said viability map;

said heart comprising a site suitable for targeted therapy by said catheter;

inserting said catheter into a chamber of said heart at [a] said site;

delivering said cell to said site with said drug delivery device based on position and orientation coordinates in response to said signals from said position sensor, and inducing angiogenesis or myogenesis in said site of said heart from said delivered cell.

Claim 5. (Amended) The method according to Claim 4, including assessing the viability of said heart [by creating a] with said viability map of said heart.

Claim 6. (Amended) The method according to Claim 5, including identifying an ischemic zone of said heart on said map as the site suitable for targeted therapy.

Claim 7. (Amended) The method according to Claim 6, including determining [said] a delivery site within said ischemic zone.

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Claim 9. (Amended) The method according to Claim 5, including identifying an infarct region of said heart on said map as the site suitable for targeted therapy.

Claim 10. (Amended) The method according to Claim 9, including determining [said] a delivery site at said infarct region.